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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LIN, JASON K	

ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/761,190	KIM, KUN-TAE	
	Examiner	Art Unit	
	JASON K. LIN	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 10/761,190 filed on 02/01/2008. **Claims 1-19** are pending and have been examined.

Response to Arguments

2. Applicant's arguments on P.6-7, with respect to independent claims have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made with Margulis in view of Mizuno.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 4, 5, 7, 10, 12, 13, 15, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Margulis (US 2001/0021998) in view of Mizuno et al. (US 2003/0046696).

Consider **claim 1,** Margulis teaches a set top box capable of performing wireless transmission (Paragraph 0040), the set top box comprising:

a television receiver (Paragraph 0036 teaches a television receiver), which converts a tuned broadcasting signal into a first stream (Paragraph 0039-0040 teaches receiving program signals via path 136);

a TS converting unit (subsystem processor 518 – Fig. 5 {TS converting unit}; Paragraph 0041, 0057), which receives at least one of a high definition (HD) image signal input from outside and an external SD image signal input from outside, converts the HD image signal into a standard definition (SD) image signal if the HD image signal is received, and then converts one of the SD image signal and the external SD image signal into a second TS (*The claim is worded in the alternative. The examiner has chosen to examine receiving a high definition (HD) image signal input from outside, converts the HD image signal into a standard definition (SD) image signal if the HD image signal is received, and then converts SD image signal into a second TS.* Paragraph 0062 teaches receiving HDTV video programming at the subsystem processor 518 – Fig.5 and generating a standard definition television stream. Paragraph 0041 and 0057 teaches subsystem processor 518 – Fig.5, 6 receives an input stream and processes and manipulates the received stream to generate a processed program information {second TS} in a format compatible for downstream use); and

a wireless processing module (Transmitter 524, Communications processor 636 – Fig.5, 6), which processes one of the first TS and the second TS as a processed output and wirelessly transmits the processed output (Paragraph 0069, 0070).

Margulis does not explicitly teach a digital television receiver, which converts a tuned digital broadcasting signal into a first transport stream (TS).

In an analogous art Mizuno teaches, a digital television receiver, which converts a tuned digital broadcasting signal into a first transport stream (TS) (digital broadcast receiver 11 – Fig.1; Paragraph 0069).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Margulis's system to include a digital television receiver, which converts a tuned digital broadcasting signal into a first transport stream (TS), as taught by Mizuno, for the advantage of allowing for receipt of clearer and more robust digital signals over the air, and demodulating the received signals into a stream for easier processing by the system.

Consider **claim 10,** Margulis teaches a method for performing wireless transmission of television signals (Paragraph 0040, 0015-0016) comprising:

receiving a broadcasting signal (Paragraph 0036 teaches receiving broadcast signals) and converting the broadcasting signal into a first stream (Paragraph 0039-0040 teaches receiving program signals via path 136);

receiving at least one of an external high definition (HD) image signal and an external standard definition (SD) image signal, converting the external HD image signal into an internal SD image signal if the external HD image signal is received, and converting one of the internal SD image signal and the external SD image signal into a second TS; and (*The claim is worded in the alternative. The examiner has chosen to examine receiving an external high definition (HD) image signal input from outside, converting the external HD image signal into an*

internal standard definition SD image signal if the external HD image signal is received, and converting the internal SD image signal into a second TS. Paragraph 0062 teaches receiving HDTV video programming at the subsystem processor 518 – Fig.5 and generating a standard definition television stream. Paragraph 0041 and 0057 teaches subsystem processor 518 – Fig.5, 6 receives an input stream and processes and manipulates the received stream to generate a processed program information {second TS} in a format compatible for downstream use); and

transmitting one of the first TS and the second TS over a wireless medium (Paragraph 0055, 0069, 0070).

Margulis does not explicitly teach receiving a digital broadcasting signal, which converts a tuned digital broadcasting signal into a first transport stream (TS).

In an analogous art Mizuno teaches, a digital television receiver, which converts a tuned digital broadcasting signal into a first transport stream (TS) (digital broadcast receiver 11 – Fig.1; Paragraph 0069).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Margulis's system to include a digital television receiver, which converts a tuned digital broadcasting signal into a first transport stream (TS), as taught by Mizuno, for the advantage of allowing for receipt of clearer and more robust digital signals over the air, and demodulating the received signals into a stream for easier processing by the system.

Consider **claim 4,** Margulis and Mizuno teach wherein the TS converting unit comprises:

a converter (Margulis - subsystem processor 518 – Fig.5, 6), which converts the HD image signal input from outside into the SD image signal and outputs the SD image signal as an output of the converter (Margulis - Paragraph 0062 teaches receiving HDTV video programming at the subsystem processor 518 – Fig.5 and generating a standard definition television stream. Paragraph 0041 and 0057 teaches subsystem processor 518 – Fig.5, 6 receives an input stream and processes and manipulates the received stream to generate a processed program information output); and

an encoding unit (Margulis - subsystem processor 518 – Fig.5, 6), which converts the external SD image signal input from outside or the output of the converter into the second TS (Margulis - Paragraph 0041 and 0057 teaches subsystem processor 518 – Fig.5, 6 receives an input stream and processes and manipulates the received stream to generate a processed program information output).

Consider **claim 5,** Margulis and Mizuno teach wherein the converter comprises:

an analog-to-digital converter (ADC), which converts the HD image signal input from outside into a digital signal (Margulis - Paragraph 0062 teaches subsystem processor 518 – Fig.5, 6 may receive HDTV video programming.

Paragraph 0058 and 0066 teaches a digitizer 516 – Fig. 5 {ADC} | ADC/Demod 517 – Fig. 6 {ADC} that converts analog video into digital video for use by subsystem processor); and

a down converter, which converts the HD image signal converted into the digital signal into the SD image signal (Margulis - subsystem processor 518 – Fig.5, 6; Paragraph 0062 teaches receiving HDTV video programming at the subsystem processor 518 – Fig.5 and generating a standard definition television stream).

Consider **claim 7,** Margulis and Mizuno teach wherein the wireless processing module wirelessly transmits the processed output in a radio frequency range (Margulis - Paragraph 0051, 0055, 0069).

Consider **claim 12,** Margulis and Mizuno teach wherein converting one of the internal SD image signal and the external SD image signal into a second TS comprises encoding one of the external SD image signal and the internal SD image signal into the second TS (Margulis - *The claim is worded in the alternative. The examiner has chosen to examine wherein converting the internal SD image into a second TS comprises encoding the internal SD image signal into the second TS.* Paragraph 0062 teaches receiving HDTV video programming at the subsystem processor 518 – Fig.5 and generating a standard definition television stream. Paragraph 0041 and 0057 teaches subsystem

processor 518 – Fig.5, 6 receives an input stream and processes and manipulates the received stream to generate a processed program information output).

Consider **claim 13,** Margulis and Mizuno teach wherein the converting the external HD image signal into an internal SD image signal comprises:

converting the external HD image signal into a digital signal (Margulis - Paragraph 0062 teaches subsystem processor 518 – Fig.5, 6 may receive HDTV video programming. Paragraph 0058 and 0066 teaches a digitizer 516 – Fig. 5 {ADC} | ADC/Demod 517 – Fig. 6 {ADC} that converts analog video into digital video for use by subsystem processor); and

down converting the digital signal into the internal SD image signal (Margulis - subsystem processor 518 – Fig.5, 6; Paragraph 0062 teaches receiving HDTV video programming at the subsystem processor 518 – Fig.5 and generating a standard definition television stream).

Consider **claim 15,** Margulis and Mizuno teach wherein the transmitting one of the first TS and the second TS over the wireless medium is done at a radio frequency (Margulis - Paragraph 0051, 0055, 0069).

Consider **claim 18,** Margulis and Mizunoteach teach one switching between one of the internal SD image signal and the external SD image signal,

and wherein the converting one of the internal SD image signal and the external SD image signal into the second TS comprises converting one of the internal SD image signal and the external SD image signal received from the one switching, into the second TS (518-Fig.5; 514, 536-Fig.5; Paragraph 0058, 0059, 0062, 0063).

5. **Claims 2, 3, 6, 8, 9, 11, 14, and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Margulis (US 2001/0021998), in view of Mizuno et al. (US 2003/0046696), and further in view of Levandowski (US 6,704,060).

Consider **claim 2,** Margulis and Mizuno do not explicitly teach a switching unit which receives the first TS and the second TS and outputs one of the first TS and the second TS as an output of the switching unit.

In an analogous art Levandowski teaches, a switching unit (216 – Fig.2) which receives a first TS and a second TS and outputs one of the first TS and the second TS as an output of the switching unit (Col 3: lines 24-37 teaches a unit 216 – Fig.2, receiving transport streams generated by demodulators 210 and 212, and outputting one of the transport streams).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis and Mizuno to include a switching unit which receives a first TS and a second TS and outputs one of the first TS and the second TS as an output of the switching unit, as taught by Levandowski, for the advantage of quickly and efficiently providing to the user the corresponding

stream that is requested, allowing the user to easily receive and view the desired video.

Consider **claim 3,** Levandowski further teaches a decoding unit which decodes the output of the switching unit and outputs a decoded TS stream to an image device connected to the set top box by a wire (Col 3: lines 33-47).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis, Mizuno, and Levandowski to include a decoding unit which decodes the output of the switching unit and outputs a decoded TS stream to an image device connected to the set top box by a wire, as further taught by Levandowski, for the advantage of supplying a display device readily displayable content, alleviating the need for complex decoding circuitry at the display device, allowing for cheaper manufacturing of corresponding display devices.

Consider **claim 6,** Margulis, Mizuno, and Levandowski teach wherein the wireless processing module wirelessly transmits the processed output in a radio frequency range (Margulis - Paragraph 0051, 0055, 0069).

Consider **claim 8,** Levandowski further teaches wherein the digital television receiver is an advanced television system committee (ATSC) receiver.

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis, Mizuno, and Levandowski to include wherein the digital television receiver is an advanced television system committee (ATSC) receiver, as further taught by Levandowski, for the advantage of allowing users to receive a wide range of digital programming in a way that complies with industry standard digital television providing the user with optimum compatibility and reception.

Consider **claim 9,** Margulis and Mizuno do not explicitly teach wherein the digital television receiver is an advanced television system committee (ATSC) receiver.

In an analogous art Levandowski teaches, wherein the digital television receiver is an advanced television system committee (ATSC) receiver.

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis and Mizuno to include wherein the digital television receiver is an advanced television system committee (ATSC) receiver, as further taught by Levandowski, for the advantage of allowing users to receive a wide range of digital programming in a way that complies with industry standard digital television providing the user with optimum compatibility and reception.

Consider **claim 11,** Margulis and Mizuno do not explicitly teach decoding one of the first TS and the second TS and transmitting a decoded signal to an image device through a wire.

In an analogous art Levandowski teaches, decoding one of the first TS and the second TS and transmitting a decoded signal to an image device through a wire (Col 3: lines 33-47).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis and Mizuno to include decoding one of the first TS and the second TS and transmitting a decoded signal to an image device through a wire, as taught by Levandowski, for the advantage of supplying a display device readily displayable content through a more noise resilient medium, alleviating the need for complex decoding circuitry at the display device, and allowing for cheaper manufacturing of corresponding display devices.

Consider **claim 14,** Margulis, Mizuno, and Levandowski teach wherein the transmitting one of the first TS and the second TS over the wireless medium is done at a radio frequency (Margulis - Paragraph 0051, 0055, 0069).

Consider **claim 19,** Margulis and Mizunoteach do not explicitly teach another switching between the first TS and the second TS for transmitting over a wireless medium.

In an analogous art Levandowski teaches, another switching between the first TS and the second TS for transmitting over a wireless medium (Col 3: lines 24-37 teaches a unit 216 – Fig.2, receiving transport streams generated by demodulators 210 and 212, and outputting one of the transport streams. Col 3: lines 48-54 teaches that one of the outputted transport streams are sent to a wireless transmitter that broadcasts at a frequency of 900MHz).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis and Mizuno to include another switching between the first TS and the second TS for transmitting over a wireless medium, as taught by Levandowski, for the advantage of quickly and efficiently providing to the user the corresponding stream that is requested, allowing the user to easily receive and view the desired video, wherever he/she may be without the bother of cumbersome wiring.

6. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Margulis (US 2001/0021998), in view of Mizuno et al. (US 2003/0046696), and further in view of Forler (US 7,222,353).

Consider **claim 16,** Margulis and Mizunoteach teach the external SD image signal (Paragraph 0058-0059) and the SD image signal output fro the converter (Paragraph 0062 teaches receiving HDTV video programming at the subsystem processor 518 – Fig.5 and generating a standard definition television

stream), but do not explicitly teach one switching unit operable to receive the two inputs and selects one of the two inputs to output to the encoding unit.

In an analogous art Forler teaches, one switching unit operable to receive two inputs and selects one of the two inputs to output to an encoding unit (Col 4: line 54 – Col 5: line 7).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis and Mizunoteach to include one switching unit operable to receive two inputs and selects one of the two inputs to output to an encoding unit, as taught by Forler, for the advantage of providing to the user more programming options in such a way that could be easily handled and processed by the system.

7. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over Margulis (US 2001/0021998), in view of Mizuno et al. (US 2003/0046696), in view of Forler (US 7,222,353), and further in view of Levandowski (US 6,704,060).

Consider **claim 17,** Margulis, Mizunoteach, and Forler do not explicitly teach another switching unit which receives the first TS and the second TS and outputs one of the first TS and the second TS as an output to the wireless processing module.

In an analogous art Levandowski teaches, another switching unit which receives the first TS and the second TS and outputs one of the first TS and the second TS as an output to the wireless processing module. (Col 3: lines 24-37

teaches a unit 216 – Fig.2, receiving transport streams generated by demodulators 210 and 212, and outputting one of the transport streams. Col 3: lines 48-54 teaches that one of the outputted transport streams are sent to a wireless transmitter that broadcasts at a frequency of 900MHz).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Margulis, Mizuno, and Forler to include another switching unit which receives the first TS and the second TS and outputs one of the first TS and the second TS as an output to the wireless processing module., as taught by Levandowski, for the advantage of quickly and efficiently providing to the user the corresponding stream that is requested, allowing the user to easily receive and view the desired video, wherever he/she may be without the bother of cumbersome wiring.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason Lin

04/24/2008

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2623